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ABSTRACT

This report summarizes conclusions and recommendations of an interdisciplinary committee which considered ways to improve the identification and auditory management of hearing-impaired children in Wisconsin schools. Major recommendations include: (1) the Department of Public Instruction (DPI) should license educational audiologists and encourage schools to employ audiologists by reimbursing districts for a portion of salary and fringe benefit costs; (2) the role and function of the educational audiologist should be clearly defined to include the design, coordination, supervision, and follow-up of regular hearing screening of all school children, and those students identified as hearing imparied should be included in multidisciplinary teams and individualized education program committees; (3) a coordinated and consistent statewide system should be developed for the reliable identification of childhood hearing impairment; and (4) an Educational Audiology Consultant position should be created within the Division for Handicapped Children and Pupil Services, hearing impairment eligibility criteria should be revised, and a joint DPI/Department of Health and Social Services committee on infant and early childhood hearing should be established. Appended are a summary of results of a 1989 survey of state education agencies, a model for school audiology services, and a memo addressing eligibility criteria. Includes 28 references and a brief glossary. (DB)

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State Superintendent's

AUDIOLOGY SERVICES IN THE SCHOOLS

Study Committee Final Report and Recommendations

WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION
HERBERT J. GROVER, STATE SUPERINTENDENT

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State Superintendent's Audiology Services in the Schools Study Committee

Final Report and Recommendations

December 1990

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Table of Contents

	Page
Letter of Transmittal	1
Membership Roster	3
Charge to the Study Committee	5
Executive Summary	6
Current Status of Audiology Services in the Schools	8
Beliefs!	12
Study Committee Recommendations	15
Appendixes	18
References	23
Glossary	25

Herbert J. Grover
State Superintendent
Department of Public Instruction
125 South Webster Street
Madison, WI 53707

Audiology Services in the Schools Study Committee Final Report and Recommendations

With this letter of transmittal, I present to you the final report and recommendations of the Audiology Services in the Schools Study Committee.

Our committee of seventeen members began its assignment in September of 1989. Members contributed perspectives from audiology, education of hearing impaired children, speech and language pathology, school and public health nursing, school administration, and medicine. Two members were also parents of hearing impaired students.

You challenged us to explore ways of better identifying and meeting the auditory needs of hearing impaired children in Wisconsin. Our first task was to carefully examine the data collected from various state projects related to educational audiology, hearing screening practices, and services to identified hearing impaired students. Guided by these challenges, members formed three subcommittees, each of which analyzed one of the prime issues identified in our charge. Subcommittees identified and debated various alternatives for addressing each challenge and developed recommendations to that end. Recommendations were then presented to the committee at large and accepted unanimously.

The final report and recommendations of the Study Committee proposes that audiology services be made more readily available in schools by implementing recommendations around four specific tasks. First, the committee recommends that the Department of Public Instruction license educational audiologists and encourage schools to employ audiologists by reimbursing districts for a portion of salary and fringe costs. Secondly, the role and function of the educational audiologist must be clearly defined. We propose that audiologists play a central role in the design, coordination, supervision, and follow-up of regular hearing screening of Wisconsin's school children. The committee also recommends that audiologists assume an active role in multidisciplinary teams and IEP committees and in the development and management of the auditory skills of students already identified as hearing impaired. Thirdly, the committee urges the development of a coordinated and consistent statewide system for the reliable identification of childhood hearing impairment. Finally, the committee urges the Department of Public Instruction to provide the leadership needed to ensure that the auditory needs of hearing impaired children in Wisconsin are identified and met. Such leadership should include the creation of an Educational Audiology Consultant position within the Division for Handicapped Children and Pupil Services (DHCPS), the revision of PI-11 eligibility criteria for determining the presence of a hearing handicap, and the establishment of a joint DPI/Department of Health and Social Services (DHSS) committee on infant and early childhood hearing.

These recommendations evolved from the analysis and synthesis of a large body of data related to our charge and required the considerable knowledge and talent of each committee member. The willingness of each member to share those talents and many hours of preparation demonstrates the dedication each has to hearing impaired children in Wisconsin. This final report was possible only through their collective efforts.

The committee also wishes to gratefully recognize the efforts of DPI staff members: Sharon Fleischfresser, Jack Frye-Osier, John Murray, Brent Odell, Betty Rowe, and Ray Wahlton. Their enthusiasm, encouragement, support, and contributions were central to the completion of our task.

On behalf of the committee, I wish to thank the Department of Public Instruction for drawing attention to the need for improved audiological services in the schools. We hope the recommendations contained within this document will provide a blueprint for action for schools to better identify and serve all of Wisconsin's hearing impaired students.

Julie F. Mead
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Charge To The Committee

August 31, 1989

Patricia French
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Dear Ms. French:

Because of your interest in and knowledge about the identification and management of childhood hearing impairment, I would like to invite you to serve as a member of a committee being convened to assist the Department of Public Instruction's (DPI) Division for Handicapped Children and Pupil Services (DHCPS) staff in exploring ways to enhance current statewide efforts in identifying and meeting the auditory needs of hearing impaired children.

The State Superintendent of Public Instruction, Dr. Herbert J. Grover, has instructed me to convene this committee as a result of data collected during a 1985 DPI survey of hearing screening practices in Wisconsin's schools. That data indicated a need to improve the current hearing screening practices in Wisconsin's schools. Additionally, data collected by grant projects supported by the DPI have shown a need to explore ways of better meeting the auditory needs of hearing impaired children in our schools.

One of the outcomes of the committee's work will be a DPI publication outlining guidelines for hearing screening, with a special emphasis on children with exceptional educational needs or suspected of having exceptional educational needs. Additionally, the committee will be asked to make recommendations to Dr. Grover relative to

1. promulgating the hearing screening guidelines into administrative rules;
2. encouraging school districts to hire audiologists to develop and supervise hearing screening programs to ensure the quality of these programs; and
3. DPI certification of audiologists and state reimbursement to the school districts to help defray the salary costs of the audiologists working in the schools.

Identifying and meeting the auditory needs of hearing impaired children in Wisconsin is an important goal. I would be pleased if you would assist the DPI/DHCPS in meeting that goal by accepting this invitation to serve on this committee.

Sincerely,

Victor J. Contrucci, Assistant Superintendent
Division for Handicapped Children and Pupil Services

Executive Summary

The State Superintendent charged the Audiology Services in the Schools Study Committee (ASSSC) with the task of making recommendations for improving the identification and auditory management of hearing impaired (HI) children in Wisconsin's schools. The seventeen committee members represented the professions of audiology, education of the hearing impaired, speech and language pathology, medicine (otology and pediatrics), school administration, and school and public health nursing. Two committee members were also parents of hearing impaired students. The committee met for seven full days of deliberation between September 1989 and October 1990. The members formed three subcommittees, and analyzed the major issues identified in each charge. Each subcommittee subsequently made recommendations to the full committee on those issues. On October 19, 1990, the committee gave unanimous approval to the report.

Challenges

The committee's concerns and recommendations can only be fully appreciated by giving careful consideration to all parts of the report. For the purposes of summarizing the report, however, the following challenges have been identified:

- The hearing screening programs in most local educational agencies (LEAs) are inadequate. Data confirm that thousands of significant hearing impairments in school-aged children are not identified, evaluated, treated, or remediated.

- Wisconsin is in the small minority of states that have no mandate or regulation which assures that children referred for suspicion of exceptional educational needs (EEN), or those already identified as having an EEN receive a hearing screening test.

- Needs assessment data collected in this state in the last five years shows that the auditory management needs of Wisconsin's school-aged hearing impaired children are not being met. The residual hearing of thousands of EEN and non-EEN children is often neglected and their full potential for auditory/verbal learning and communication is underdeveloped because the appropriate educational audiology services are not provided in local education agencies (LEAs). Educational audiologists are the only professionals with the necessary training to direct essential auditory management services, yet they are rarely employed by LEAs in Wisconsin.

- Wisconsin statutes do not provide for licensing of educational audiologists. Wisconsin is one of only 10 states which does not use some state special education dollars to help pay the salaries of educational audiologists in LEAs.

(*Please refer to the glossary for a definition of key terms.*)

Responses to the Challenges

The effects of hearing impairment on learning and communication justify the development of a coordinated and consistent statewide system for the identification and management of childhood hearing loss. In order to adequately address the needs of Wisconsin's HI children, this system must be built upon the licensing of educational audiologists for positions in LEAs which are reimbursable with state special education funds. The educational audiologist is the appropriate professional to design and direct LEA hearing screening programs, direct the auditory management services necessary for the optimal use of functional residual hearing,

and collaborate with other special education professionals in the development of HI children's auditory and speech skills.

The Department of Public Instruction should provide the leadership to develop a statewide system of identification and auditory management, and to that end should take the following actions:

- Create an Educational Audiology Consultant position within the Division for Handicapped Children and Pupil Services (DHCPS).

- Develop licensing standards for educational audiologists employed in LEAs.

- Provide categorical funding for educational audiologists employed in LEAs.

- Define the role and function of educational audiologists in administrative rule to include identification and auditory management responsibilities for both EEN and non-EEN hearing impaired children.

- Introduce legislation or create administrative rules which ensure that appropriate populations of children are reliably screened for hearing loss and followed appropriately to assure resolution and/or proper remediation of the hearing loss.

- Develop programs and procedures which will assist LEAs and health care providers in addressing the unmet identification and auditory management needs of hearing impaired children.

The DPI should assume the leadership role and work with other state and local agencies, institutions, and interested parties to correct the problems that exist in the identification and provision of auditory management services to hearing impaired children in Wisconsin. This Audiology Services in the Schools Study Committee Report to the State Superintendent is offered as a framework for such action.

Current Status of Audiology Services in the Schools

Hearing Screening Subcommittee Findings

In 1985-86 the Department of Public Instruction's Bureau for Children with Physical Needs (BCPN) conducted a survey of hearing screening practices in all local education agencies (LEAs) in Wisconsin. The survey results (Frye-Osier and Wahlton, 1988) documented that the majority of children at greatest risk for hearing loss and its consequences were not screened; that much of the screening that occurred in LEAs was done by inadequately trained and supervised personnel using nonstandard hearing screening guidelines and protocols; and that critical evaluations and follow-up of many children that failed hearing screening tests did not occur. Data cited below confirms that little improvement in LEA hearing screening programs has occurred since the 1985-86 BCPN survey.

Valid and reliable LEA hearing screening programs are essential. Childhood hearing losses must be identified and remediated early in order to optimize hearing impaired children's potential for auditory/verbal learning and communication. Audiologists are the professionals best qualified to develop, direct, and monitor the quality of hearing screening and auditory management programs in LEAs.

- Among school-age children, the prevalence of auditory disorders is highest in preschool (ages three to five) and EEN populations (Mielke and Huntoon, 1988, 1989; MacDonald, 1988; and Haasch, 1989), yet data collected in Wisconsin schools document that over half of these children were not screened successfully in the 1985-86 school year (Frye-Osier and Wahlton, 1988).

- The data from recent Wisconsin discretionary grant and special projects in educational audiology (Mielke and Huntoon, 1988, 1989; MacDonald, 1988; and Haasch, 1989) show that 75 percent to 95 percent of early childhood, mentally retarded, and multiply handicapped students, had no record of ever having their hearing screened prior to the involvement of an educational audiologist in their school districts.

- More than one third of the most difficult children (preschool and some EEN children) to test were screened by volunteers, health aides, and others who had little training, supervision, or experience.

- School districts provided audiologists by educational audiology discretionary grants or projects, found that 25 percent to 35 percent of the EEN population failed two pure tone/tympanometry (*see glossary*) screenings conducted one month apart and required a medical referral.

- Even with follow-up efforts in the school districts served by educational audiology grants or projects, only one third of children referred for medical evaluations after failing hearing screenings also received an audiological evaluation. (Mielke and Huntoon, 1988, 1989; MacDonald, 1988; and Haasch, 1989).

- In the 1985-1986 school year, 30 percent of children who failed hearing screening tests were not monitored audiometrically after referral for medical treatment (Frye-Osier and Wahlton, 1988). Therefore, for these children, there was no method for ensuring that medical

treatment occurred, or that a hearing loss was identified or resolved (Mielke and Huntoon, 1988, 1989; MacDonald, 1988; and Haasch, 1989).

- Of the 352 Wisconsin school districts that screened with pure tone audiometers in the 1985-1986 school year, only half followed the American Speech-Language-Hearing Association (ASHA, 1985) and Bureau for Children with Physical Needs guidelines. Similarly, during the same time period, only half of the 40 districts screening with tympanometry followed BCPN tympanometry guidelines and criteria.

- In 33 states there are laws or regulations requiring audiometric hearing screening of children referred for evaluation of suspected EEN, and 34 states have similar regulations for children known to be EEN (see Appendix A).

- There are no Wisconsin statutes which require that children with EEN, or those suspected of having EEN, are screened for hearing loss.

- A statewide absence of valid and reliable services exists for the identification of hearing impairment during the critical years for language development (birth through two years of age). The incidence of developmentally-significant hearing impairment in this population is very high (Hasenstab, 1988; Kavanagh, 1986; and Northern and Downs, 1984).

- PL 94-142, the Education for All Handicapped Children Act (EHA), 34 CFR, Chapter 3, section 300.13, defines audiology to include identification of children with hearing loss.

Educational Audiologists Subcommittee Findings

Most states recognize the importance of providing audiological services in the schools and use state special education dollars to at least partially fund those services. Wisconsin is one of only 10 states that does not use any state special education dollars to fund educational audiology services (see Appendix A). Needs assessment data collected in Wisconsin in the last five years demonstrates that the identification and auditory management needs of EEN and non-EEN hearing impaired children are not being met (Frye-Osier and Wahlton, 1988; MacDonald,1988; Mielke and Huntoon, 1988, 1989; and Haasch, 1989). Mild to moderate, fluctuating, and unilateral (one ear only) hearing impairments are common among non-EEN children and are associated with serious delays in the development of language, academic and social skills, and emotional health (Oyler and Matkin, 1988; Kavanagh, 1986; Hasenstab, 1987; Blair, 1985; Bess, 1985). Therefore, this committee believes that it is crucial for LEAs to secure the services of educational audiologists to ensure quality identification and auditory management programs for all children with hearing impairments. As of the summer of 1990, only four Wisconsin school districts directly employed educational audiologists.

Educational achievement, otologic health, and social and emotional development are adversely affected when children have unidentified hearing impairments. In addition, children with identified hearing impairments suffer similar adverse effects when functional residual hearing is inadequately managed. The educational audiologist is the member of the educational team who is qualified to direct the identification and auditory management services necessary to ensure that hearing impaired children's functional residual hearing is fully exploited for auditory/verbal learning and communication.

- Scientific and professional literature documents the negative effects of undetected and inappropriately managed hearing impairments (Flexner, Wray, and Ireland, 1989; Hasenstab,

1987; Davis, Elfenbein, Schum, and Bentler, 1986; Davis, 1982; Ross, Brackett, and Maxon, 1982; Freeman and Parkins, 1979).

- Early identification of hearing impairments and the provision of appropriate auditory management services can eliminate or significantly limit the developmental consequences of handicapping hearing impairments (Hasenstab, 1987; Davis, et.al., 1986; Northern and Downs, 1984; Ross and Giolas, 1978).

- Estimates of the prevalence of hearing impairments in the school-aged population vary. Adams and Hardy (1989) report data collected in 1988 which show that 1.7 percent of children age 18 and younger are affected by hearing impairments. Others report estimates of hearing impairments in the kindergarten through 12th grade population of 5 percent to 20 percent (Berg, 1986; Ross and Giolas, 1978).

- The 1988 Wisconsin statewide federal child count revealed that only 0.18 percent of Wisconsin school-aged children were identified as having hearing impairment as either a primary or secondary handicapping condition.

- Prevalence estimates of hearing impairments in select populations of school-aged children are even higher. Kropka and Williams (1986) cite studies which report up to a 50 percent prevalence of hearing impairment in intellectually handicapped school-aged children. They also summarize four studies which report that from 62 to 85 percent of Down Syndrome children are affected by hearing impairments. In a Wisconsin study of 186 children with Down Syndrom evaluated in three audiology centers, the prevalence of hearing impairment ranged from 50 to 89 percent (Kile, Kuba, Nellis, and Becker, 1990).

- DPI sponsored grant and project data show that 25 percent to 35 percent of the early childhood EEN (EC; EEN), mentally retarded (MR), and multiply-handicapped (MH) populations exhibit persistent decrements in hearing sensitivity sufficient to justify medical referral and audiological evaluation (MacDonald, 1988; Mielke and Huntoon, 1988, 1989; Haasch, 1989).

- Language differences between federal and state eligibility criteria for determining the presence of a hearing handicap have led to disagreement and confusion among professionals (see Appendix C).

- Educational audiologists rarely function as multi-disciplinary (M-Team) or Individualized Education Program (IEP) committee members for hearing impaired children.

- Most HI children spend part of their school day in a regular education classroom. The background noise and physical characteristics of these classrooms often make listening extremely difficult for HI children. Educational audiology services and appropriately selected, fitted, and monitored assistive listening devices, e.g. FM systems, (*please refer to the glossary*) are fundamental to successful auditory and verbal learning and communication. (Finitzo-Hieber and Tillman, 1978; Hawkins, 1984; Bess, Freeman, and Sinclair, 1981).

- Data collected in Wisconsin LEAs in the past five years show that when educational audiology services are not available, assistive listening devices are frequently not used or are used improperly. (Haasch, 1989; Mielke, 1988, 1989).

- State and federal statutes mandate that handicapped students receive a free and appropriate public education in the least restrictive environment. Without appropriate auditory management services, many classrooms, because of their physical characteristics and level of background noise, are auditorily restrictive for HI children (Finitzo, 1988).

- DPI sponsored grant and project data has documented that in the absence of educational audiology services, over half of the hearing impaired children in Wisconsin had no current audiological data in their school files (Mielke and Huntoon, 1988, 1989; MacDonald, 1988; Haasch, 1989).

- The Education for the Handicapped Act, (CFR 34, 300.303) requires that "Each public agency shall insure [sic] that the hearing aids worn by deaf and hard of hearing children in school are functioning properly." Fifteen years after passage of the EHA, surveys show that the majority of Wisconsin hearing impaired students' hearing aids are not functioning properly (MacDonald, 1988; Mielke and Huntoon, 1988, 1989).

- The Education for the Handicapped Act (CFR 34 300.13(a)) mandates that audiology as a related service must be provided to handicapped children when it is necessary for them to benefit from special education.

- By the end of the 1989-school year, only four of Wisconsin's 429 school districts employed educational audiologists.

Educational Audiologist Licensure Subcommittee Findings

The licensing of educational audiologists by the DPI is critical for two important reasons. First, to establish standards that will promote quality educational audiology services for Wisconsin children, and, secondly, to reflect the professional role and function of the educational audiologist (see Appendix B).

The educational audiologist can play a vital role on the educational team. In Wisconsin, however, educational audiologists are rarely employed by LEAs. At present, the funding sources for these positions are LEA funds, PL 94-142 flow-through funds, and PL 99-457 preschool entitlement funds. LEAs cannot get state categorical financial assistance to provide audiological related services without DPI licensing for educational audiologists. The educational audiologist is the most qualified professional to direct auditory management services in collaboration with other members of the educational team. Therefore, DPI licensing of educational audiologists, and the provision of state categorical aids to assist LEAs in paying educational audiologist's salaries are necessary. Given these incentives more LEAs are likely to provide educational audiology service to hearing impaired children.

- As of the 1989-1990 school year, only four audiologists were employed by four LEAs in Wisconsin. PL 99-457, PL 94-142 discretionary, and BCPN special project funds provide salary for four additional educational audiology positions. These additional positions are funded for three years or less.

- Forty states currently use state special education funds to reimburse for audiology services in the schools. Wisconsin is not one of those states. The required credentials for audiological service providers in these states vary, and include State Education Agency certification/licensure, state licensure, and the Certificate of Clinical Competence credential of the ASHA (see Appendix A).

Beliefs!

The Audiology Services in the Schools Study Committee has explored the unmet identification and auditory management needs of Wisconsin's hearing impaired children, and in this report makes detailed recommendations for meeting those needs. The following statements represent the beliefs that formed the foundation for the committee members' recommendations.

Beliefs About the Magnitude of the Problem

Hearing impairment (HI) is a common childhood disability which has an even higher prevalence among populations of EEN children. If undetected or inappropriately managed, even a mild, unilateral (one-ear only), and/or fluctuating hearing impairment can impair auditory language learning, aural and oral communication, academic performance, or social and emotional development. Since survival rates for critically ill newborns continue to rise, and health care for large numbers of infants and children in this country continues to be inadequate, there is good reason to expect that childhood hearing impairment will continue to be a major problem for our society.

Hearing impairment is an invisible disorder, that, in many cases remains unidentified until significant developmental damage has occurred. The nature and consequences of moderate and lesser degrees of hearing impairment are not well understood by many in the health and education communities, resulting in a lack of essential support services necessary for successful auditory learning by mild to moderately hearing impaired children. Unidentified HI or improperly managed functional residual hearing can disrupt not only auditory language learning and communication, but the academic and social skills which are dependent on language and communication.

Hearing impairment affects approximately 20,000 to 30,000 Wisconsin children. Currently only about 1,300 of these children receive special education or related services. The quality of most hearing screening efforts in Wisconsin is poor and the residual hearing of many of Wisconsin's hearing impaired children is neglected. The lives of thousands of Wisconsin's children will be unnecessarily limited unless we ensure that all hearing impairment in childhood is identified early and that functional residual hearing is optimally managed.

Beliefs About the Identification of Hearing Impairment

The identification of childhood hearing impairment as early in life as possible should be a high priority in Wisconsin. Valid and reliable hearing screening methods are well developed, cost effective, and can be applied to any infant or child. To date, the necessary resources have not been committed by educational or health agencies.

We believe that hearing screening activities should

- be of the highest quality statewide, and be accessible to all infants and children in the state.

- be under the supervision of a licensed audiologist, and specifically the educationally licensed audiologist when screening is conducted in the schools.

- ensure that effective and reliable communication occurs among families and the health, social, and educational communities, so that all the needs of children with HI are met.

Beliefs About the Auditory Management of Hearing Impaired Children

The auditory skills of hearing impaired children are dependent on early and adequate auditory management services provided by licensed audiologists. Any degree of functional residual hearing in a child should be considered to be exploitable for language development and/or communication purposes. In order to ensure the optimal use of hearing impaired children's residual hearing, auditory management services must be provided as early in life as possible and be available in the environment in which the child develops and learns. Therefore, certain auditory management services must be delivered in the schools, and should be under the direction of licensed educational audiologists skilled in meeting the multi-faceted needs of hearing impaired children.

Private sector audiologists play an important role in the evaluation and management of childhood hearing loss, but cannot be expected to provide the range of services necessary to meet the multi-faceted auditory management needs of hearing impaired children in the school environment (see Appendix B). Educational audiologists should not duplicate readily available services from private-sector audiologists, but should collaborate with them to ensure that all of the auditory management needs of hearing impaired children are met.

Educational audiologists are essential members of the educational team. Their collaboration with other special education professionals is vital to meeting the identification and auditory management needs of Wisconsin's HI children. These beliefs are widely held among teachers of the hearing impaired and school speech and language pathologists in Wisconsin. Wisconsin must do more to provide these services in local education agencies.

Beliefs About the Provision of Audiological Services

The data in the professional literature clearly supports the belief that even a mild, unilateral (one-ear only), and/or fluctuating hearing loss can have serious negative consequences for a child's language, academic, social, and emotional development. Furthermore, this committee believes that a hearing impaired child's performance cannot be predicted solely on the basis of a pure tone audiogram. Therefore, this committee believes that

- Wisconsin eligibility criteria for determining the handicap of hearing impairment prevent some hearing impaired children with significant needs from being considered for special education and related services (see Appendix C).

- state eligibility criteria should reflect current medical knowledge and knowledge of the educational effects of HI.

- all EEN children should be considered potential candidates for audiology as a related service.

- the licensed educational audiologist should participate in the determination of a hearing impaired child's need for audiology as a related service and the delineation of those services.

Beliefs About Problem Resolution

Currently, 40 states spend some state special education dollars to support audiological services delivered in the schools. Wisconsin is not among them. Certification standards for educational audiology providers vary widely among the states, but most are written by state educational agencies (see Appendix A). In addition, over 60 percent of the states mandate hear-

ing screening of EEN and suspected EEN children, while others have even more elaborate and inclusive hearing screening mandates. Wisconsin has no such mandates. Clearly, Wisconsin is lagging behind the majority of states on these issues. Therefore, this committee believes that

- the state legislature has the responsibility to ensure through the force of law that high quality, standardized hearing screening programs be developed for all infants, toddlers, and school-aged children in Wisconsin.

- hearing screening programs for infants and children should be under the direction of a licensed audiologist.

- educational audiology services as defined above must be available to all LEAs, and be provided at no cost to all eligible EEN children.

- educational audiology services should be provided by, or under the direction of, educational audiologists who are certified by the DPI and whose salaries are reimbursable.

- administrative rule should clearly define the educational audiologist's role and function on the educational team.

Summary

This committee believes that the Department of Public Instruction should provide the leadership in Wisconsin to facilitate the development of a statewide educational audiology services delivery system which would ensure quality identification and auditory management services for all HI children in all school districts. Such a service system would require that the DPI license audiologists as a state-reimbursable related service, define their role and function, and permit delivery of educational audiology services to all EEN children.

Through legislation, enhanced funding, collaboration among public and private agencies, and support to local school districts and communities, Wisconsin can meet the needs of its hearing impaired children.

Study Committee Recommendations

The Audiology Services in the Schools Study Committee respectfully submits to the State Superintendent the following recommendations for providing and improving identification and auditory management services for Wisconsin's hearing impaired children.

Licensing and Funding of Educational Audiologists

The study committee recommends that educational audiology services be available to all local education agencies and that the following course of action be taken to facilitate that goal:

- Create Department of Public Instruction licensure, special education administrative rules, and program approval standards for educational audiologists.

- Include in the certification requirements standards for academic preparation, professional experience, and continuing education requirements.

- Clarify current opportunities for local education agencies to fund educational audiology services through the use of federal discretionary and flow-through monies, and third party reimbursement.

- Provide state categorical special education reimbursement for educational audiologists employed by local educational agencies.

Role and Function of the Educational Audiologist

The study committee recommends the following course of action to define the role and function of the educational audiologist:

- Require the participation of an educational audiologist in the M-team process whenever hearing impairment is suspected to assist in the determination of the presence of a handicapping condition and the need for special education, to help to determine the need for audiology-related services, and to define the content of those related services.

- Define the role of the educational audiologist to include both identification and auditory management responsibilities, and to collaborate with teachers, speech and language pathologists, and other education professionals.

- Define the role of educational audiologists in meeting the needs of nonexceptional educational needs hearing impaired children.

- Define the role of the educational audiologist in providing inservice training to administrators and staff, in parental counseling, and in collaborating with private-sector service providers to ensure comprehensive auditory management services for hearing impaired children.

The Identification of Hearing Impairment

The study committee recommends the following course of action to develop a coordinated and consistent statewide system for the reliable identification of childhood hearing impairment:

- Mandate through administrative rule or legislation that the following populations be screened for hearing loss:

  a) children enrolled in school for the first time
  b) all children through age nine on an annual basis
  c) all children referred for initial EEN evaluation

- Review/revise current DPI hearing screening guidelines and protocols to reflect current best practices in hearing screening.

- Develop a means to ensure the uniform application of DPI hearing screening guidelines and protocols in all Wisconsin LEAs.

- Create and promote procedures and guidelines for the referral and follow-up of children who have failed the hearing screening process including:

  a) referral guidelines and procedures for medical/audiological evaluations
  b) reporting guidelines for private sector medical/audiological evaluators to ensure that LEAs receive educationally useful evaluation data
  c) procedures for LEA hearing screening program record keeping
  d) procedures for communicating medical and audiological evaluation information to appropriate teaching staff

- Ensure that hearing screening personnel are properly trained and supervised by licensed audiologists.

Leadership

The Audiology Services in the Schools Study Committee recommends that the Department of Public Instruction provide the leadership in facilitating the provision of educational audiology services in LEAs and in ensuring that the identification and auditory management needs of all hearing impaired children in Wisconsin are met. This course of action should include the following components:

- Create an Educational Audiology Consultant position within the Division for Handicapped Children and Pupil Services. This statewide position should perform the following functions:

  a) assist school administrators with an understanding of the need for educational audiology services
  b) provide inservices for LEA special education and health staff
  c) promote collaboration between LEAs and private sector medical and audiological service providers
  d) establish a dialogue with Wisconsin colleges and universities regarding preservice training for audiologists and other professionals who serve hearing impaired children
  e) participate in the development of educational audiologist licensure standards and educational audiology program approval standards

- Revise the PI-11 eligibility criteria for determining the handicapping condition of HI. The criteria should be based on function and performance as well as medical findings.

- Establish a DPI/Department of Health and Social Services joint committee on infant and early childhood hearing to:

  a) develop the resources and mechanisms necessary to ensure the reliable identification of hearing impaired children in this population
  b) collaborate in the identification and provision of adequate services for this population
  c) create guidelines for the development of Individualized Family Service Plans

- Facilitate LEA use of third party reimbursement and exploration of other funding resources.

Appendix A

In 1989, the Wisconsin Department of Public Instruction surveyed all state education agencies (SEAs) regarding state childhood hearing screening mandates and state certification standards and funding sources for school based audiology services. The results of that survey are summarized below.

Question One

Does your state have laws or regulations which require audiometric hearing screening of children referred for evaluation of suspected exceptional educational needs (EEN)?

- Thirty states replied "yes"
- Three states replied "yes, for selected categories of EEN"

Question Two

Does your state have laws or regulations which require audiometric hearing screening of children already determined to have EEN?

- Thirty-four states replied "yes"

Question Three

Does your SEA certify audiologists for positions in local educational agencies (LEAs) which are reimbursable with state special education funds?

- Forty states report using state special education funds to pay all or part of LEA audiologist's salaries.
- Nineteen SEAs certify audiologists to provide services in the schools
- Fourteen SEAs use state audiology licensure as the minimum credential for serving in LEAs.
- Six SEAs use the Certificate of Clinical Competence from the American Speech-Language-Hearing Association as the necessary credential for school service.
- One SEA accepts certification from their state health agency as the necessary credential for school service.

Appendix B
Model for Audiology Services in the Schools

The outline that follows is offered as a model for audiology services in the schools. The audiologist is, by training and experience, the appropriate professional to provide these services and has a critical role to play on the educational team.

I. Identification

A. Train and supervise screening personnel and do the screening of difficult to screen children.

B. Serve as the liaison with the medical community for referral and management of children who fail the screening process. Ensure an uninterrupted flow of information to and from medical providers.

C. Monitor children referred for medical care via repeated audiometric screening after the medical evaluation.

D. Counsel parents regarding hearing loss and auditory management.

E. Ensure that current audiological reports are part of all hearing impaired children's educational records.

F. Calibrate audiometric equipment.

G. Participate in the planning of school district child-find activities.

II. Habilitation/Rehabilitation

A. Participate in the M-team evaluation and IEP development for all EEN children with hearing loss, determine their need for audiological related services, and define the scope of those services.

B. Amplification

1. Establish a network with private sector audiologists and dispensers who recommend and/or provide personal amplification systems and participate in the selection process.

2. Establish an amplification system monitoring program which ensures usage and proper electroacoustic function.

3. Collaborate with the private sector for amplification system maintenance, repair, and replacement.

4. Provide counseling to parents and teachers regarding amplification system usage and care, expectations of children's performance, and provision of the proper acoustic environment for optimum amplification system usage.

5. Serve as a referral resource for parents seeking financial assistance for otologic or audiologic services.

C. Room Acoustics

1. Provide inservices to teachers and educational administrators regarding the importance of a good acoustic environment to hearing impaired children.

2. Evaluate classroom acoustics and recommend improvements.

3. Advocate for assistive listening devices and systems (ALDS) and collaborate with local providers in providing and maintaining such equipment.

4. Provide inservices to parents and teachers regarding ALDS and include these devices in amplification systems monitoring activities (II. B.2.).

D. Inservice and Counseling

1. **For parents and mainstream classroom teachers**: audiogram interpretation, amplification system function and care, auditory perceptual skills and expectations, communication strategies, and medical management.

2. **For special education personnel**: work as part of the educational team to ensure maximal exploitation of residual hearing. Collaborate with teachers of the hearing impaired and speech and language clinicians in the development of curricula for teaching speech, auditory training, speech reading, and language development.

3. **For educational administrators**: advocate for the resources necessary to ensure the appropriate auditory management of all hearing impaired children.

III. Prevention

A. The audiologist should develop materials and methods for informing children of the dangers of noise exposure and should ensure that risks to hearing from noise exposure do not exist in the schools.

B. The audiologist should network with all groups concerned with children's health and development to provide information regarding the prevention, early identification, and (re)habilitation of hearing loss.

Appendix C

April 23, 1990

RE: Testimony presented at DPI public hearing in Madison, Wisconsin regarding eligibility criteria for Hearing Handicapped.

FROM: Audiology Services in the Schools Study Committee
c/o Julie Mead, Chairperson
CESA 2
430 East High Street
Milton, WI 53563

On behalf of the Audiology Services in the Schools Study Committee, I wish to thank the Department of Public Instruction for providing this opportunity to present input regarding the current eligibility criteria for special educational services.

The Audiology Services in the Schools Study Committee (ASSSC) was convened by DPI in September 1989. The committee has been charged with making recommendations to Dr. Grover with respect to improving identification and management of hearing impairment for Wisconsin school children. The committee is currently in the process of drafting those recomendations and hopes to publish its final document later this year. However, in the course of developing those recommendations, it has become apparent that the committee must strongly recommend that the Department of Public Instruction re-evaluate and revise current criteria for the determination of hearing handicapped in Wisconsin administration rule PI 11.35e. Since these hearings were established to solicit input regarding those criteria, we, the members of the committee, wish to bring to your attention the reasons which compel re-examination of the definition of hearing handicapped in Wisconsin.

1. Current Wisconsin criteria are inconsistent with Public Law 94-142, CFR, Section 34, Part 300.5. Since rules in PI 11.35 are more restrictive than the federal definition, hearing impaired children with significant needs may be prevented from receiving special education and related services. Two specific contradictions deserve attention.

    a. PI 11.35 contains the statement "The loss of hearing acuity affects the normal development of language and is a medically irreversible condition for which all medical interventions have been attempted." This statement suggests that only students with permanent losses can exhibit exceptional educational needs. Therefore it directly contradicts federal language which contains the phrase "whether permanent or fluctuating." Also, given the changing nature of medical technology, suggesting "all medical interventions have been attempted" puts an unrealistic burden on parents.

    b. PI 11.35 also states "Audiological assessment should indicate at least a 30dB loss in the better ear in the speech range." This statement prevents students with unilateral hearing losses, high frequency losses, and mild losses from being considered for the special services they may need. Federal criteria place *no* decibel limits *nor* address the bilateral/unilateral issue. Rather, the federal focus is on how the student *functions* given *any* identified hearing impairment. PI 11's emphasis on a medical model of hearing impairment offers little guidance to educators and tends to diminish consideration of student functioning.

2. Wisconsin criteria, as it now exists, does not reflect current knowledge of the effects of hearing impairments on learning. Although ignored by current criteria, the negative

effects of mild, unilateral, and fluctuating hearing losses have been well documented in the literature. For example, a recent study by Oyler, Oyler, and Matkin (1988) found that 23.7 percent of students with unilateral losses had repeated at least one grade. Wisconsin must recognize that these students are at risk for academic failure.

In conclusion, we, as members of the committee, urge the Department of Public Instruction to revise PI 11.35 to achieve compatibility with federal eligibility criteria and to reflect current knowledge of the effects of hearing impairment on learning. The members of the Audiology Services in the Schools Study Committee feel confident that such revisions will enhance the opportunities and service of all of Wisconsin's hearing impaired students.

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Glossary

Assistive Listening Devices (ALDs) are devices designed to solve one or more specific listening problems created by a hearing loss which cannot be solved by hearing aids alone. ALDs may be used independently or in combination with hearing aids.

Auditory Management Services are audiological services which ensure that hearing impairments are identified, evaluated, and treated, and that functional residual hearing is maximally exploited for receptive and expressive communication.

Hearing Impairment is a generic term which includes all disorders of hearing regardless of their nature, cause, or severity, whether permanent or fluctuating, unilateral or bilateral, which impair one or more of the following: auditory language learning, auditory/verbal communication, academic performance, social, or emotional development.

Tympanometry is the measurement of the changes which occur in the ear's resistance to the passage of acoustic energy as air pressure in the ear canal is changed, or as the ear responds to very loud sounds. This measurement can be used to screen for middle ear abnormalities and to aid in the diagnosis of auditory system pathologies.